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CATS NEWSLETTER

The Official Journal of the Capital Area Timex/Sinclair Users Group

Presidential Ramblings

I goofed! Tim's deadline completely escaped me, so I'm simply jotting down a few lines during Akim's demonstration in the hopes that Tim will type them up for me.

Akin is giving us a "twofer". He's incorporated a demonstration of XCHANGE along with hs usual complete demo of his Abacus knowledge. And now that I've begun to switch my financial records from VuCalc to Abacus, I'm truly learning from this session.

We welcomed Charles Spann, a CATS member from West Virginia, and Viktor Samms, a visitor from Yugoslavia, to our meeting. It's great to be able to tie a face with Charles's name.

I'll make this a "quikie", so as not to impose on Tim's good nature [and not so hot typing - ED]. Remember that the March meeting is the FIRST Saturday, March 2nd. We'll be back to a workshop plus the regular meeting schedule.

Ruth

Next Meeting

March 2

11:00 - 4:30

From The Editor:

This month's newsletter is being done differently this month. It seems that my QL has come up with a bad keyboard. In fact, even the spare keyboard came up bad after a few weeks. So hear I sit typing in my column on an old CP/M computer.

I do have a new keyboard on order from Paul Holmgren. He informs me that these new keyboards are just that; new. It seems that they have just been manufactured. This means that they should last a few years. I am also told that it is the vinyl that dries out and causes the cracking of the membrane. He says that a vinyl protectorant (Son of a Gun, etc) will help the vinyl last longer. Bill Miller of the Silicon Valley Group seems to confirm this.

Paul is also checking into the other keyboard alternatives for the QL. There is one available from the German company, ABC, that allows the QL to use any IBM-style keyboard. This means that you can pick up a keyboard at your local computer store. Since I intend to keep my QL around a few more years (let's face it, I'm lost without it), I plan on upgrading to one of the keyboard alternatives.

Since my QL is down, you will notice the absence of some of the articles you might have expected this month. Not having a QL means not having access to those articles stored on disk.

Ruth was nice enough to bring a spare QL to the last meeting, so I could borrow it to do the

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Key Dates

2 March: CATS Meeting
11:00 Workshop
2:00 Executive Board Meeting
2:30 General Meeting

24 March: Newsletter Deadline
For the Next Issue

13 April: CATS Meeting
Hyattsville Library

Next Meeting:

Mark Fisher will continue in the series on the PSION programs by covering ARCHIVE, the database program.

Duane Parker will be holding a workshop at this meeting. Duane is always ready for new topics and willing to continue on older topics, like the Disk Inventory project.

newsletter, but, stupid me, I left the meeting without it.

So, I hope you will understand why certain articles did not appear this month. Fortunately, we did get some new articles this month, and happily on hard copy. I'll also be putting in some excerpts from other newsletters.

One note of interest: I'm moving to another apartment come the end of the month. My wife and I found that we will need a second bedroom some time in early Oct. The address won't change much, we're staying in the same complex. After looking at the size of the new apartment, I found that I have plenty of room for my computer collection, and I'll get half of the second bedroom as a computer room. Finally I can spend hours programming with out the TV to interupt me.

One more note about the newsletter, a couple of months ago I bought a TRS-80 Model III computer. With it came a Apple Letter Quality Printer. I am now using it to print out the newsletter. I plan to use it on the QL, but I have to iron out a few details about the printer driver. The printer is big and noisy, but the results look nice.

That's about all I have to say for now. See you all at the next meeting and/or in the next newsletter.

Happy Hacking,

Tim

Modem Review

By Dave Bennett

Datatronics 2400P Modem Review

I recently bought a new 2400 Baud pocket modem to use with my Z88. A pocket modem is just a smaller version of a full size modem. They are approximately one quarter the size of a standard modem.

The modem's dimensions are 5 inches by 2.5 inches by 1.12 inches. It weighs 0.33 pounds. The modem is beige colored to match most computers except Sinclairs.

There are five LEDs: Low Battery, Auto Answer, Modem Ready, High Speed and Carrier Detect.

It takes a 9 volt battery or an AC adapter. I get about 8 hours on an alkaline battery and 2 hours on a rechargeable Ni-Cad. I generally use an AC adapter at home and the batteries on the road.

There is a female DB25 connector on one end of the modem. This is designed to plug directly into the serial port of an IBM type computer. The Z88 has a DB9 connector so a cable is needed to connect to the modem. See the diagram in my article in the July 1990 CATS Newsletter or contact your dealer for a cable.

The modem is 100% Hayes compatible so it is compatible with all your software. It also has an extended command set so it has some commands that older Hayes modems do not have.

This modem has some features I have not seen on some other modems. There is a non-volatile memory to store two configuration profiles and 10 telephone numbers. The configuration profile is all the software switch settings and registers in the modem. You can view the non-volatile memory to see the status of all these settings in one display.

There are some diagnostic commands available to test your computer, modem, telephone line, remote modem and remote computer. These should be useful if you ever experience communication problems.

Other countries have different modem standards. They use different tones for tone dialing and different on hook/off hook intervals for pulse dialing.

You can change these settings if you plan on doing some overseas traveling. I have a couple telephone numbers stored. Other than that I have not changed any of the defaults that came with the modem. It may be neccesary to change some of the settings when using different telephone systems while traveling.

Performance wise I am getting some random garbled text at 2400 baud while logged onto GEnie. Setting Xon/Xoff on the Z88 Panel to Yes eliminated about 99% of the garbled text.

Some Bulletin Boards have Null settings. This is a variable delay that you can set. Setting the Nulls to a higher number should eliminate this garbled text. Xmodem transfers work perfectly at 2400 and the extra speed is nice when downloading a long file. It's best to turn Xon/Xoff to No when using Xmodem. Xmodem is a file transfer protocol designed to transfer any file even machine language.

I bought a 2400 baud modem at this time because GEnie changed their rates. 300, 1200 and 2400 baud all now cost $6.00 an hour. 2400 baud saves time and money. GEnie also has over 100 services at $4.95 per month. You don't pay the $6.00 an hour when you access these services.

2400 baud also makes long distance calls less expensive.

Time is money here as well.

I bought the 2400P from Jameco Electronics in California and paid $139.95 for it. Pocket modems are generally more expensive than full size modems. But I felt that this modem's extra features and small size were worth the price.

Computer Fest and Hamboree

The Greater Baltimore Hamboree and ComputerFest is coming to the Maryland State Fairgrounds in Timonium, Md, on 6th and 7th of March.

Admission is $5 for both days. Hours are from 8 a.m. to 5 p.m. on Saturday and 8 a.m. to 4 p.m. on Sunday.

The highlight of the show [as far as I'm concerned - ED] is the Flea Market. It's going to be a treasure trove of completely useless, but MUCH needed, computer hardware and software. Here's the place to get more computer pounds for the dollar. All kinds of interesting items to look at.

For more information call 1-800-HAM-FEST 24 hours. If in MD, call (301) HAM-FEST.

CATS BBS is UP!

Mark Fisher has just informed the newsletter staff [That's me folks - ED] that the CATS Bulletin Board system is now up and running.

For all those people that tried to call all of January, and who thought we were down for the count, now is the time to call. And barring any more problems, we'll be around a few more years.

See the back of the newsletter for the CATS BBS phone number.

Predicting Lunar Eclipses

By Mel Richardson

From May-June '89 Sinc-Link

Throughout mankind's history, its' societies have placed great importance on the motions of the moon around our earth. From two to four times a year, the moon passes partly or wholly through the earth's shadow. Predicting this event was in times past, a feat of great power or at least thought really hard.

Nowadays, anyone with a microcomputer can do it. This must be significant but I will leave the reader to ponder or ignore the point and present a program that does all the magic.

The routine was assembled by Herbert Raab of Traun, Austria from various bits published in "SKY & TELESCOPE" magazine and converted to Sinclair Basic by me.

The program asks for a year then outputs a list of eclipses with the following details: the date and time of maximum eclipse, the magnitude into the penumbra and umbra if that occurs, the semiduration times and length of totality if that occurs. Magnitudes are in lunar diameters into the shadow zones and Semiduration times are the times from first contact with the shadow zone to maximum or from max to last contact. The time of maximum eclipse is given in Universal Time (UT) and subtracting your locations' hours West of Greenwich gives the local time. For instance 2300 hours UT minus 5 hours is 1800 hours EST.

Those who have a previous program from these pages called "NEW & FULL MOONS" can save slogging through all those numbers by starting with that and adding the lines shown here. The program here is "bare bones". It may be neccessary to enter (CONT) for some years and the reader can add any displays that seem interesting. My own version uses "SRAM-HR" for a neat title page. I will submit this to the club library and anyone with SRAM-V3 can easily merge it. Those with V2 can do the same with direction from the documentation.

The results are accurate to a few minutes and I have included one for you to check your results against.

```
  1 REM >LUNAR ECLIPSES
 10 LET R1=PI/180
 20 LET U=0
 30 PRINT "ENTER YEAR:"
 40 INPUT Y
 50 LET G=1
 60 REM N/P MOONS 5/A
 70 IF Y<1583 THEN LET G=0
 80 LET K0=INT ((Y-1900)*12.368
5)
 90 LET T=(Y-1899.5)/100
100 LET T2=T*T
110 LET T3=T*T*T
120 LET J0=2415020+29*K0
130 LET F0=.0001178*T2-.0000001
55*T3
140 LET F0=F0+.75933+.53058868*
K0
150 LET F0=F0-.000837*T-.000335
*T2
160 LET J0=J0+INT (F0)
170 LET F0=F0-INT (F0)
180 LET M0=K0*.08084821133
190 LET M0=360*(M0-INT (M0))+35
9.2242
200 LET M0=M0-.0000333*T2
210 LET M0=M0-.00000347*T3
220 LET M1=K0*.07171366128
230 LET M1=360*(M1-INT (M1))+30
6.0253
240 LET M1=M1+.0107306*T2
250 LET M1=M1+.00001236*T3
260 LET B1=K0*.08519585128
270 LET B1=360*(B1-INT (B1))+21
.2964
280 LET B1=B1-.0016528*T2
290 LET B1=B1-.00000239*T3
300 FOR X=1 TO 27 STEP 2
310 LET J=J0+14*X
320 LET F=F0+.765294*X
330 LET K=X/2
340 LET M5=(M0+K*29.10535608)*R
1
350 LET M6=(M1+K*385.81691806)*
R1
360 LET B6=(B1+K*390.67050646)*
R1
370 LET F=F-.4068*SIN M6
380 LET F=F+(.1734-.000393*T)*S
IN M5
390 LET F=F+.0161*SIN (2*M6)
400 LET F=F-.0104*SIN (2*B6)
410 LET F=F-.0074*SIN (M5-M6)
420 LET F=F-.0051*SIN (M5+M6)
430 LET F=F+.0021*SIN (2*M5)
440 LET F=F+.5/1440
450 LET J=J+INT F
460 LET F=F-INT F
470 GOSUB 510
480 NEXT X
490 STOP
500 REM LUNAR ECLIP 5/A
510 LET D=7
520 IF ABS (SIN B6)>.36 THEN GO
TO 1010
530 LET S=5.19595-.0048*COS M5
540 LET S=S+.002*COS (2*M5)
550 LET S=S-.3283*COS M6
560 LET S=S-.006*COS (M5+M6)
570 LET S=S+.0041*COS (M5-M6)
580 LET C1=.207*SIN M5
590 LET C1=C1+.0024*SIN (2*M5)
600 LET C1=C1-.039*SIN M6
610 LET C1=C1+.0115*SIN (2*M6)
620 LET C1=C1-.0073*SIN (M5+M6)
630 LET C1=C1-.0067*SIN (M5-M6)
640 LET C1=C1+.0117*SIN (2*B6)
650 LET D9=ABS (S*SIN (B6)+C1*C
OS (B6))
660 LET U=.0059+.0046*COS M5
670 LET U=U-.0182*COS M6
680 LET U=U+.0004*COS (2*M6)
690 LET U=U-.0005*COS (M5+M6)
700 LET RP=1.2847+U
710 LET RU=.7404-U
720 LET MP=(1.5572+U-D9)/.545
730 IF MP<0 THEN GOTO 1010
740 LET MU=(1.0129-U-D9)/.545
750 LET D5=1.5572+U
760 LET D6=1.0129-U
770 LET D7=.4679-U
780 LET N=(.5458+.04*COS M6)/60
790 LET D5=SQR (D5*D5-D9*D9)/N
800 IF MU<=0 THEN GOTO 840
810 LET D6=SQR (D6*D6-D9*D9)/N
820 IF MU<=1 THEN GOTO 840
830 LET D7=SQR (D7*D7-D9*D9)/N
840 GOSUB 1030
850 PRINT
860 PRINT "ECLIPSE DATE:  ";D1;
"/";M;"/";Y
870 PRINT "MAXIMUM PHASE: ";H1;
"H ";M9;"M UT"
880 LET MP=INT (1000*MP+.5)/100
0
890 PRINT " PENUMBRAL MAG:  ";M
P
900 IF MU<=0 THEN GOTO 930
910 LET MU=INT (1000*MU+.5)/100
0
920 PRINT  " UMBRAL MAG:    ";M
U
930 PRINT " SEMIDURATIONS --"
940 LET D5=INT (D5+.5)
950 PRINT "   PENUMBRA:       ";
D5;"M"
960 IF MU<0 THEN GOTO 1010
970 LET D6=INT (D6+.5)
980 LET D7=INT (D7+.5)
990 PRINT "   UMBRA:          ";
D6;"M"
1000 PRINT "   TOTALITY:       ";
D7;"M"
1010 RETURN
1020 REM JD->CAL 5/A
1030 LET F=F+.5
1040 IF F<1 THEN GOTO 1070
1050 LET F=F-1
1060 LET J=J+1
1070 IF G=1 THEN GOTO 1100
1080 LET A=J
1090 GOTO 1120
1100 LET A1=INT ((J/36524.25)-51
.12264)
1110 LET A=J+1+A1-INT (A1/4)
1120 LET B=A+1524
1130 LET C=INT ((B/365.25)-.3343
)
1140 LET D=INT (365.25*C)
1150 LET E=INT ((B-D)/30.61)
1160 LET D=B-D-INT (30.61*E)+F
1170 LET M=E-1
1180 LET Y=C-4716
1190 IF E>13.5 THEN LET M=M-12
1200 IF M<2.5 THEN LET Y=Y+1
1210 LET D1=INT D
1220 LET H=24*(D-D1)
1230 LET H1=INT H
1240 LET M9=INT (60*(H-H1))
1250 RETURN
```

```
ECLIPSE DATE:  20/2/1989
MAXIMUM PHASE: 15H 37M UT
 PENUMBRAL MAG:   2.363
 UMBRAL MAG:      1.271
 SEMIDURATIONS --
  PENUMBRA:          182M
  UMBRA:             111M
  TOTALITY:           39M
```

Akin Brings ABACUS to Life for Followers of CATS

By Hank Dickson

Once again--this time at the February meeting--one of our CATS members provided an excellent presentation on a subject dear to all the troops in Clive's army.

AKINBOLE OLOWOFOYEKU (A'keen for short) provided an exceptionally illuminating discussion about the program called EXCHANGE, and how it works with ABACUS.

AKIN ranks near the top of the senority list for CATS membership, and is currently a member-at-large of the executive committee.

Last spring he gave a talk about "Spreadsheets for Sinclairs" in which he went back to the VU-CALC package marketed by Timex/Sinclair for the ZX81, TS1000, and TS1500.

Comparisons were made with the version of VU-CALC spawned for the 2068. A tenuous linkage was struck with cousin VISI-CALC, a product which eventually burst onto the PC world as LOTUS 1-2-3, one of the great success stories of all time.

Most recently, his major emphasis was on the "master control program" known as EXCHANGE. Created by the PSION organization, EXCHANGE increases the effectiveness of ABACUS, QUILL, ARCHIVE, and EASEL. For example, EXCHANGE makes it super easy to move files around between the four PSION packages.

EXCHANGE can also provide security (passwords) at the file level, if the user desires.

Because of its sophistication, EXCHANGE requires the presence of a TRUMP card. Unfortunately, the world is still waiting for these trumps to tumble in value.

In ABACUS, EXCHANGE provides ease of file management when going in and out of ASCII. This makes imports or exports of any kind simple to do. It also paves the way for going from QL-to-DOS and thence to DOS machines.

EXCHANGE preserves the formulae in spreadsheets wherever they may be sent (nice!).

EXCHANGE also makes it possible--when working on a spreadsheet--to split the screen horizontally or vertically. In addition, the user can split the screen horizontally and vertically at the same time--no mean trick. In fact, it looks about as good in practice as the much-ballyhooed three-dimensional spreadsheets of LOTUS 3.0!

AKIN demonstrated using EXCHANGE with several templates (or little ABACUS programs) in real-world situations:

* Mortgages (a favorite)
* Expense account (fantasyland)
* Accounts receivable (critical)
* Petty cash (creative acounting)
* Inventory/Reorder (vital)
* Super combos (summaries)

Finally, he showed us a fabulous CALENDAR package he developed using ABACUS and other software. It creates physical calendars and makes special searches based on instructions from the user. It is flashy and has color cabability.

Last winter we were fortunate to have members of AKIN's family with us, including MARY, his wife; daughters ENIOLA and YENISI; and son AKIN, Jr. We hope that very soon they will all be able to be with us again!

God's Dice

A Book Review by Mark Fisher

GOD'S DICE: A review of...Does God Play Dice?
Ian Stewart, auth.,
Basil Blackwell Ltd, Publ.
1989.(now available in paperback)
Review by Mark Fisher

Oh boy, ANOTHER chaos book. The Chaos book industry has a problem. The first books in the field were of such a quality that their successors just don't have much of anywhere to go. Mandelbrot's The Beauty of Fractals collected examples of all the current graphic incarnations of the field, while Glick's Chaos, The Making of a New Science provided a high standard for textural explanations of what is going on.

Into this field comes Ian Stewart. His credentials include time as a professor of mathematics, an author of works ranging from "The Groups of Wrath" through professional journals to science fiction, and TV and radio appearances.

In this work, Ian concentrates on building a context for Chaos theory. This context is shown, both in relation to it's history (stretching back to the Antikythera mechanism) and it's contemporary cousins (such as topology and Knot theory).

In drawing this context, Ian shows his flexible hand with useful metaphor. His description of WHAT an "attractor" is is excellent, and leaves the reader with a pretty clear idea of why some attractors are called "strange". In addition, there is a relaxed awareness that the reader just MAY own a computer his/her self. A number of examples he cites are conciously drawn specifically enough to be programmed "as an exercise by the reader." There is a constant leavening of humorous thoughts... "Mathematics is like an addiction, or a disease: you can never truly shake it off, even if you want to."

About 60% of the history duplicates Glick. Ian isn't ashamed of this; in fact there are numerous quotes from Glick in these parts. In the other part, Ian reaches farther back in time, and wider across modern Chaos-dealing domains, to such items as the Cyber computer that muffed the prediction of the biggest snowstorm in Britain, or (a core focus) the chaotically tumbling moon Hyperion.

Overall, Does God Play Dice? provides a more substantial mathematical understanding of why chaos is a useful idea, when compared with the last book I reviewed on the subject, or even Glick. I never did figure out why there's a diagram of a polio virus on the cover, though.

Some QL Procedures

By Jack Barone

From Nov. 1990 Capital District
Timex/Sinclair, Albany New York

I have listed four procedures I have found useful. The first (NAME) is a label printer which allows you to select the number of copies you want. Lines 25121 to 25126 are input error traps. Lines 25125 and 25126 may be changed if you want more than 10 copies. Line 25130, the backslashs after Print #6 can be changed to fit your spacing from one label to the next. Line 25130 controls the codes to your printer. The set_codes procedure must be loaded in to your program to use this feature. I have used some GOTOs in the above procedure so be sure to check the new line numbers if you renumber this procedure.

The set_codes procedure works with EPSON and SEIKOSHA printers. You may have to change some of the control codes to fit your printer. The SHAD2 procedure opens a window on the screen and prints your information in shadow writing. You may have to adjust the size of the window to fit your information. The last (FONTA)

Continued on Page 10

```
25100 DEFine PROCedure NAME
25112   OPEN #6,ser1:set_codes
25113    CLS
25115     AT 2,2:OVER 0:STRIP 0,7,1:CSIZE 2,1:INPUT "      INPUT NO. OF COPIES",x
$
25121      FOR C=65 TO 90
25122       IF x$=CHR$(C) THEN CLS:AT 6,10:PRINT "ERROR RESELECT":CSIZE 0,0:OVER
 1:GO TO 25115
25123       IF x$=CHR$(32+C) THEN CLS:AT 6,10:PRINT"ERROR RESELECT":CSIZE 0,0:OV
ER 1:GO TO 25115
25124        NEXT C
25125       IF x$<11 THEN GO TO 25128
25126       IF x$>10 THEN CLS:AT 6,10:PRINT"ERROR RESELECT":CSIZE 0,0:OVER 1:GO
TO 25115
25128      FOR a=1 TO x$
25130     set_codes:PRINT #6,RESET;doub$;FON$;DSon$;LQon$;ELon$;rmON$;BOLDon$:PR
INT #6,"       YOUR NAME
                     YOUR STREET NUMBER
                           YOUR CITY AND STATE  ZIP":PRINT #6,\\\\
25140    NEXT a
25150   CLOSE #6
25160 END DEFine
```

```
32540 DEFine PROCedure set_codes
32550  ESC$=CHR$(27):Reset$=ESC$&'@':Retn$=CHR$(13):LF$=CHR$(10):PF$=CHR$(12)
32560  VT$=CHR$(11):LFn$=ESC$&'J':REMark You Must ADD CHR$(Var n)
32570  ELon$=ESC$&'M':ELoff$=ESC$&'P':CONon$=CHR$(15):CONoff$=CHR$(18)
32580  LQon$=ESC$&'x1':LQoff$=ESC$&'x0':PROPon$=ESC$&'p1':PROPoff$=ESC$&'p0'
32590  rmON$=ESC$&'Q'&CHR$(85)
32600  SUPERon$=ESC$&'S0':SUBon$=ESC$&'S1':SCRIPToff$=ESC$&'T'
32610  ITALon$=ESC$&'4':ITALoff$=ESC$&'5':MULTIon$=ESC$&'!':MULTIoff$=Reset$
32620  BOLDon$=ESC$&'E':BOLDoff$=ESC$&'F':DSon$=ESC$&'G':DSoff$=ESC$&'H'
32630  DWon$=ESC$&'W1':DWoff$=ESC$&'W0':ULon$=ESC$&CHR$(1):ULoff$=ESC$&CHR$(0)
32640  BKSPC$=CHR$(8):CLRBUF$=CHR$(24):PAPEROUTon$=ESC$&'9':PAPEROUToff$=ESC$&'8
'
32650  CGR$=ESC$&'A'&CHR$(8):SDGR$=ESC$&'K'&CHR$(0)&CHR$(1):GRoff$=ESC$&'2'
32660  DDGR$=ESC$&'L'&CHR$(0)&CHR$(1):DDSG$=ESC$&'Y'&CHR$(0)&CHR$(1)
32670 END DEFine set_codes
```

```
30510 REMark shad2
30515 DEFine PROCedure shad2
30517   OPEN #13,con_420x40a35x10
30520    PAPER #13,0:INK #13,7:OVER #13,1:CLS
30530     CSIZE #13,3,1:BORDER #13,5,7
30540      FOR I=0 TO 10
30550       CURSOR #13,I,I
30560      IF I=10 THEN INK #13,0
30570     PRINT #13,"YOUR INFORMATION"
30580    END FOR I
30585   INK 0
30590  CLOSE #13
30640 END DEFine
```

```
27600 DEFine PROCedure fonta
27605 CLS:set_codes
27610   OPEN #15,CON_350X180A85X65:CLS #15
27620    CSIZE #15,2,0:
27630     INK #15,7:PAPER #15,0:BORDER #15,8,0,7,0
27640      PRINT #15,"THE PRINTER DEFAULTS ARE:"
27650      PRINT #15\,""\"  DOUBLE STRIKE"\\"  LETTER QUALITY"\\"  ELITE"\\"  RI
GHT MARGIN(80)"\\"  BOLD"
27660     CSIZE #15,0,1:PRINT #15,""\"  PRESS ANY KEY TO CONTINUE"
27740      PAUSE
27750     font
27760 END DEFine
28000 DEFine PROCedure font
28010 OPEN #7,CON_350X180A85X65:CLS #7
28015   CSIZE #7,3,0:INK #7,7:PAPER #7,0:BORDER #7,8,0,7,0
28020    PRINT #7,"FONT SELECTION"
28025    PRINT #7,""
28030    PRINT #7," PRESS"
28035    PRINT #7,""
28040    PRINT #7,"  P FOR PICA"
28045    PRINT #7,""
28050    PRINT #7,"  E FOR ELITE"
28055    PRINT #7,""
28060    PRINT #7,"  I FOR ITALIC"
28070    PRINT #7,""
28075    PRINT #7,"Then"
28080    PRINT #7," DOUBLE WIDTH?  Y/N"
28090   fon1
28140 END DEFine
29000 DEFine PROCedure fon1
29010   IF KEYROW(6)=16 THEN CURSOR #7,250,60:PRINT #7,"<":FON$=ELon$:ELSE GO
 29020
29020   IF KEYROW(5)=4 THEN CURSOR #7,250,80:PRINT #7,"<":FON$=ITALon$:ELSE GO T
O 29030
29030   IF KEYROW(4)=32 THEN CURSOR #7,250,40:PRINT #7,"<":FON$=Reset$:ELSE GO T
O 29040
29040   IF KEYROW(5)=64 THEN CURSOR #7,50,140:PRINT #7,"ON":PAUSE 100:doub$=DWon
$:CLS :CLOSE #7:GO TO 29000
29050   IF KEYROW (7)=64 THEN CURSOR #7,50,140:PRINT #7,"OFF":PAUSE 100:doub$=DW
off$:CLS:CLOSE #7:GO TO 29000
29060  GO TO 29010
29070 END DEFine
32540 DEFine PROCedure set_codes
32550  ESC$=CHR$(27):Reset$=ESC$&'@':Retn$=CHR$(13):LF$=CHR$(10):PF$=CHR$(12)
32560  VT$=CHR$(11):LFn$=ESC$&'J':REMark You Must ADD CHR$(Var n)
32570  ELon$=ESC$&'M':ELoff$=ESC$&'P':CONon$=CHR$(15):CONoff$=CHR$(18)
32580  LQon$=ESC$&'x1':LQoff$=ESC$&'x0':PROPon$=ESC$&'p1':PROPoff$=ESC$&'p0'
32590  rmON$=ESC$&'Q'&CHR$(85)
32600  SUPERon$=ESC$&'S0':SUBon$=ESC$&'S1':SCRIPToff$=ESC$&'T'
32610  ITALon$=ESC$&'4':ITALoff$=ESC$&'5':MULTIon$=ESC$&'!':MULTIoff$=Reset$
32620  BOLDon$=ESC$&'E':BOLDoff$=ESC$&'F':DSon$=ESC$&'G':DSoff$=ESC$&'H'
32630  DWon$=ESC$&'W1':DWoff$=ESC$&'W0':ULon$=ESC$&CHR$(1):ULoff$=ESC$&CHR$(0)
32640  BKSPC$=CHR$(8):CLRBUF$=CHR$(24):PAPEROUTon$=ESC$&'9':PAPEROUToff$=ESC$&'8
'
32650  CGR$=ESC$&'A'&CHR$(8):SDGR$=ESC$&'K'&CHR$(0)&CHR$(1):GRoff$=ESC$&'2'
32660  DDGR$=ESC$&'L'&CHR$(0)&CHR$(1):DDSG$=ESC$&'Y'&CHR$(0)&CHR$(1)
32670 END DEFine set_codes
```

From Page 8

allows you to select different printer settings from the screen. A window is opened and the default settings are shown. The defaults are set out side the procedure by using the set_codes. Line 27650 must be changed to show your personal default settings for your printer.Procedure FONT must be changed if you change the new selections. Font1 is the actual selection of the neu codes, these sould be changed to what ever you want. The set_codes section is the same as the set_codes on the other side of this sheet. I save the set_codes on to a disk or MDV and merge it in to any program that will use it. The procedure will start by typing in FONTA. I suggest you type in the procedure and run it once. I use it for my mailer program and like the double width feature for addressing packages.

2 NEW RELEASES FROM
****> RMG ENTERPRISES <****

HERE ARE 2 NEW RELEASES FROM THE WRITING TEAM OF JEAN AND BRANSON WILCOX. We hope that you will give, them a try and help support our 2068 software producers!

YACHT

© 1988 BRANSON WILCOX

Remember the old dice poker game? Here is a great rendition of it for you to run on your 2068. Introductory priced at: ONLY $12.95 plus $2. PH

TAROT

This one is for all of you TAROT card enthusiasts. I really have not seen a better program of its type for the 2068. It is fun to get your readings done by THE AMAZING CLIVE from his TAROT cards! Also introductory priced at: ONLY $12.95 plus $2 PH

RMG ENTERPRISES

1419 1/2 7TH STREET
OREGON CITY, OR 97045

Baltimore Beckoning CATS

By Hank Dickson

DUANE PARKER, leader of CATS' hardware special interest group, has implemented a series of alternate-site, off-date meetings for the greater Baltimore area.

The first took place Saturday, January 19, 1991 at the Linthicum branch library, near the BWI airport. The attendees included TOM ROBBINS, HERB SCHAAF, TIM ACORD, RUTH FEGLEY, HANK DICKSON, GEORGE REY, BILL LIST (who lives in Linthicum), and DUANE PARKER.

The main topic was "Enhancements to Quill", covered admirably by TOM ROBBINS. Talk also included PARKER/SCHAAF dissertaions about a central project of the group, a dictionary software package which will facilitate the management of mass storage.

Plans were made for the constuction of a cable connecting a SKIP FISHER monitor and a QL. There was also discussion of the default files found in the EXCHANGE program plus banter about SPELLBOUND, TURBO QUILL, and various printer drivers.

Parking was simple and a ground level door led directly from the lot to the nicely appointed meeting room. Work tables and electrical outlets were in abundance.

DUANE plans to have the alternate hardware group meetings in March, May and November. He has next targeted Saturday, March 23.

Final details regarding date, time and place will be announced at the CATS meeting Saturday, March 2.

If you want to confirm this information after March 2, call:

Duane Parker...301-285-2799
Herb Schaaf....302-478-9278
Hank Dickson...301-577-6645
Tim Acord.....703-780-3878

A Peek At Chaos

By Mark Fisher

Bifurcation diagrams on the QL
Mark Fisher

I've "done" fractals since the T/S 1000. With almost any machine, you may wander for yourself through places only the most esoteric of mathematicians wandered a few years ago. As I read Ian Stewart's book, Does God Play Dice? my enthusiasm was rekindled, and you see the result below.

A key idea of Ian's was to tie the points plotted to distinct tones. This gives the observer a clearer understanding of the ever changing, yet self-similar nature of the chaotic portions of the bifurcation diagram, and the sudden transitions to regularity.

In fiddling around with this program, I've "prettied up" the display some. I've added a "front end" that lets you alter the operation of the program on the fly, varying the number of iterations at will and toggling the "music" on and off. I've also set up an index pointer that would let you pinpoint transitions.

```
100 REMark Mathematical Taffy -
     Bifurcation diagram Mark
     Fisher 1990
110 title
120 REMark title returns:
     s_scan=start of
     scan:e_scan=end of
     scan:scalar=1.9/(e_scan-s_sca-
     n)=spreads plot out across
     screen
130 reps=120:snd=1
140 windo_set
150 REMark : reps=number of points
     plotted to the screen:snd=
     sound toggle
160 FOR k=s_scan TO e_scan STEP
     (e_scan-s_scan)/510
170       AT 0,0:PRINT k;'
180       INK
     2:LINE(k-s_scan)*scalar,0 TO
     (k-s_scan)*scalar,9E-3:INK 6
190       x=.9:oldpitch=50
200       FOR t=1 TO 200+reps
210          key=CODE(INKEY$)
220          IF key<>0 THEN change
230          x=k*x*(1-x):REMark ????
     this is the core of the
     program
240          IF t>200 THEN
     plotit:REMark lets initial
     value stabilize
250       NEXT t
260       CLS#4:REMark old pointer
     position
270 NEXT k
280 AT#0, 4,0:INPUT#0, 'Enter "S"
     to save, "E" to explore
     display',k$:CLS#0, 3
290 key=CODE(k$) && 95: REMark
     forces upper case
300 SELect ON key
310       =CODE("S"):INPUT#0, "Save
     as what file? (I'll add the
     extension)"!k$:SBYTES
     k$&"_scn,131072,32768"
320       =CODE("E"):GO TO 160
330 END SELect
340 STOP
350 DEFine PROCedure plotit
360       IF snd
370          LET pitch=128-x*128
380          duration=100+ABS((oldpi-
     tch-pitch)*40)
390          IF BEEPING THEN GO TO
     390:REMark still beeping from
     last point
400          BEEP
     duration,pitch:PRINT#3, pitch
410          oldpitch=pitch
420       END IF
430       POINT (k-s_scan)*scalar,x
440 END DEFine
450 DEFine PROCedure change
460       SELect ON key
470          =32:snd=NOT snd
480          =192:IF k>s_scan THEN
     k=k-(e_scan-s_scan)/255:GO TO
     260
490          =200:IF k<e_scan THEN GO
     TO 260
500          =208:reps=reps*1.2
510          =216:reps=reps/1.05
520       END SELect
530       AT#0, 0,48:PRINT#0,
     INT(reps)!'reps  '
540       AT#0, 2,28:IF snd THEN
     PRINT#0, 'OFF': ELSE
     PRINT#0,"ON "
550 END DEFine
560 DEFine PROCedure title
570       WINDOW#1,
     511,200,0,0:BORDER
     5,110:REMark titles and
     initial setup area
```

Continued Next Month

CATS Newsletter
P.O. Box 11017
Takoma Park, MD 20913

FIRST CLASS MAIL

The next meeting of CATS will be held on: March 2, 1991

11:00 AM Workshop
2:00 PM General Meeting

At: New Carrollton Public Library 7414 Riverdale Road (Hwy 410), New Carrollton, MD

IF YOU ARE NOT A MEMBER OF CATS. THIS IS THE ONLY ISSUE YOU WILL RECEIVE

The Capital Area Timex/Sinclair Users Group

is a not-for-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

Executive Board

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CATS maintains a gratis exchange of newsletters with approximately 30 Users Groups across the U.S. and Canada. Groups not sending a newsletter to us for six months are automatically taken off the list.

Meetings

Monthly meetings are held from 11:00 AM to 4:30 PM, on the second Saturday of each month, at the New Carrollton Public Library.

Newsletter

Memberships cost $15 per year, are good for 12 months, and include all privileges (access to libraries, group buys, etc.). A newsletter only subscription is available for persons living outside the Washington Metro area and is $12 per year.

Networks

Timex SIG on Compuserve: Wednesday night, 10:00 PM Eastern time (GO CLUB).

CATS BBS: (301) 588-0579. 8-N-1. 300/1200 baud. News and general information, 24 hours a day.